Dental Care

Rural residents were more than four times as likely as urban residents to live in areas with dentist shortages, and accounted for 56 percent of the population of shortage areas (calculation based on Table 6). Just over half the practitioners needed to remove dental care shortage designations would have to locate in rural areas.

Mental Health Care

The largest differences in health manpower availability between urban and rural areas concern mental health care personnel.[7] Rural residents are more than seven times as likely as urban residents to live in areas with shortages of mental health personnel (Table 6). Nearly two-thirds of the mental health professionals needed to remove shortage designations would have to locate in rural areas.

Adequate mental health care services can be important to areas undergoing rapid economic and social changes. Many observers have noted, for example, that the boom-bust cycle common to mining and oil-drilling communities can leave such communities especially vulnerable to alcohol and substance abuse and violence. In addition, since mental disorders and related conditions are frequently chronic in nature, providing adequate mental health services requires not only enough providers, but also that these providers establish a stable practice in the community.

Rural Shortage Areas Are Expanding

In the four years since the last NRECA report, the proportion of the U.S. population living in health manpower shortage areas rose for all three types of manpower considered. Thus, despite the growing availability of physicians, the U.S. as a whole continues to suffer from a physician distribution problem.

This problem continues to have a disproportionate impact on rural areas. The number of urban residents living in primary care shortage areas rose by 400,000 over this period, for a 2.3 percent increase (author's calculations based on Patton (1988) and Table 6). The number of rural residents living in primary care shortage areas rose by 4 million, or 25 percent. Thus, while the availability of physicians in rural areas is increasing, it is not keeping up with population needs. The rural population is continuing to lose ground in physician availability relative to the urban population.

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[7] This category includes psychiatrists, psychologists, and certain specialties of social workers.

The share of the rural population living in shortage areas rose in the face of the continuing decline in the rural population itself. The decline in the rural population may widen measured urban-rural differences as better-off rural areas are absorbed into adjacent metropolitan areas. Thus, it may require ever-greater efforts on the part of federal, state, and local governments, as well as medical educators, to ensure that rural physician availability improves.

Retaining Rural Physicians

Rural areas face problems not only with recruiting adequate health care personnel, but also with retaining them. Continuity of physician relationships can be important to ensuring cost-effective and high-quality health care, particularly for chronic conditions.

Turnover Among Rural Physicians

Kindig et al. (1992) review evidence that rural physicians tend to be older than those in urban areas. An aging physician population raises the likelihood of large waves of near- and intermediate-term retirements.

Retirement is not the only source of physician turnover. Another important finding from their work is that counties of less than 25,000 population experienced more than 25 percent turnover in physicians between 1983 and 1988. While there are no standards for judging whether this figure is excessive, Kindig and his colleagues suggest that both physician turnover and physician supply should be considered in measures of the adequacy of physician availability.

The National Health Service Corps

An important policy tool for increasing the number of physicians in rural areas has been the National Health Service Corps. The Corps, a federally funded program, has placed over 16,500 providers in medically underserved communities since its creation in 1970. A major tool of the Corps for recruiting physicians and other health care professionals to serve needy urban and rural communities has been the Scholarship program. Under the program, a health professional receiving financial support must serve a year in selected needy areas for each year of support received.

One of the goals of the Corps has been to retain physicians in underserved areas past their service obligation. A recent nine-year follow-up study assessed the Corps' efficacy in achieving this goal (Pathman et al. 1992). The study compared the retention of physicians serving scholarship obligations in subsidized rural clinics with that of non-Corps physicians in similar settings.

After 8 years of employment, only 12 percent of Corps physicians were still working in their original practice, compared with 29 percent of non-Corps physicians. Of the Corps physicians, 39 percent were still practicing in rural areas, compared with 52 percent of the non-corps physicians. The study concluded that the retention of rural Corps physicians is "poor."[8]

Area Health Education Centers (AHECs) are another federal initiative aimed at improving the conditions of rural medical practice. AHECs have been intended to create state and regional links between academic health centers and physicians practicing in rural areas. Their impact on attracting and retaining rural physicians has been difficult to assess, however (Ricketts and Cromartie 1993).

The Training Connection

The Corps has attempted to increase the propensity of newly trained physicians to locate in rural areas. Another study suggests that focusing on medical training may be more effective than post-training incentives. The organization, location, and mission of medical schools appear to be major factors determining whether their graduates will select rural practice (Rosenblatt et al. 1992).

The study found that twelve medical schools accounted for over one quarter of the physicians entering rural practice between 1976 and 1985. Four characteristics of medical schools were strongly associated with a tendency to produce rural practitioners: location in a rural state, public control, production of family physicians, and smaller amounts of funding from the National Institutes of Health. Only time will show, however, whether these physicians retain an interest in rural practice.

Large anticipated waves of retirements among rural physicians, combined with low retention rates among Corps-trained physicians, suggest that rural areas will have to find new ways to attract and retain physicians. One place to start this search could be among educational institutions with a proven record of success.

Expanding Physician Productivity

The persistence of rural physician shortages in the face of growing numbers of physicians has also led to increased interest in expanding physician productivity. One way to achieve this goal is to increase use of nurses and mid-level practitioners in rural areas. This trend is discussed below.

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[8] Nelson (1992) reaches a similar conclusion and discusses alternative approaches to retaining rural physicians.

Another approach that is increasing in popularity is the use of "circuit rider" specialists in rural areas (Korczyk and Witte 1991). These physicians provide specialist care and consultations to areas that might not be able to support full-time specialists. Such arrangements can both improve patient care and overcome physician isolation.

Interest is also growing in expanding physician productivity through telecommunication. Such links between rural physicians and distant specialists can increase physician productivity and reduce lags in patient treatment (Analytical Services 1989). Many observers argue, however, that improved links between urban and rural physicians should not be considered a substitute for improved physician availability in rural areas.

NURSES, MID-LEVEL PRACTITIONERS AND ALLIED PROFESSIONS

Nurses, nurse practitioners (NPs),[9] and physician assistants (PAs),[10] are more likely than physicians to locate in rural areas. Data on the geographic distribution of many types of mid-level practitioners are fragmentary and infrequently updated, but some general trends of importance to rural areas can be identified.

Nurses

In some sparsely populated areas, nurses are the sole providers of health care. Nurses continue to be more likely than physicians to locate in rural areas. In 1991, rural states had more nurses relative to population than either urban or mixed states (Table 5).

State-level data may hide significant shortfalls in nursing personnel, however. Rural nurses tend to work in the most populated communities (Kindig et al. 1990). As a result, many smaller communities have fewer nurses relative to population than do majority-rural states as a group. Small communities may also face disproportionate hardship from nursing vacancies. Many rural hospitals have reported nursing vacancy rates as high as 15 percent (American Hospital Association 1988). With their smaller staffs, small hospitals may be less able than larger institutions to provide adequate service in the fact of such vacancy levels.

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[9] Nurses with advanced training who can provide a range of medical services as well as nursing services.

[10] PAs are licensed to perform only medical tasks (rather than nursing as well) and always work under a physician's supervision.

Physician Assistants

PAs are also likely to locate in the smallest communities, but their preferences for rural practices seem to be declining. Nearly 19 percent of PAs practicing in 1984 were located in communities of 10,000 or fewer (Patton 1988).[11] This proportion declined to 17.4 percent in 1992 (American Academy of Physician Assistants (AAPA) 1993). In that year, 33.5 percent of PAs practiced in communities of fewer than 50,000, but this figure was down from 39 percent in 1989 (Office of Technology Assessment (OTA) 1990).

One factor influencing the location patterns of PAs is state regulation. States that permit PAs to prescribe medication tend to have growing numbers of PAs in rural areas, while those that do not have experienced declines (AAPA undated). This authority may make it more feasible for PAs to practice in areas underserved by physicians. At the present time, 32 states and the District of Columbia accord PAs such authority.

Nurse Practitioners

The proportion of NPs practicing in rural areas declined slightly during the 1980s from about 18 percent to under 16 percent of all NPs in practice (OTA 1990). The demand for NPs is increasing, probably spurred in part by the growth of managed care plans. These plans employ nurses, NPs, and other mid-level practitioners both in direct patient care and in care management and review. Training programs, on the other hand, are becoming more restrictive, with most currently conferring a master's degree rather than a certificate as was the case two decades ago.

Increased demand, combined with more restrictive certification requirements, could make it more difficult for rural areas to compete for NPs. On the other hand, NPs, like many other health care professionals, tend to practice in the areas where they are trained (Sultz et al. 1980). Thus, expanding NP training programs in rural states and communities could help rural areas attract needed personnel.

Third-party payor reimbursement for services of mid-level practitioners can also influence their geographic distribution. In particular, rural areas rely significantly for health care coverage on Medicare and Medicaid due to high relative numbers of elderly and poor. Adequate reimbursement for these practitioners can make rural practices more financially feasible. Under the Omnibus Budget Reconciliation Act of 1990 (OBRA 1990), rural nurse practitioners and clinical nurse specialists will be reimbursed directly for services that would be physician services

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[11] Practitioner-to-population ratios for PAs, NPs, and CNMs are not presented due to relatively small numbers of practitioners.

if provided by a physician. This change should improve rural health personnel recruitment and retention.

Certified Nurse Midwives

Four years ago, the NRECA report cited evidence that pre-natal and obstetric care were becoming dangerously short in rural areas. Certified Nurse Midwives (CNMs) can alleviate some of this shortage while reducing rural health care costs (Taylor and Ricketts 1993). CNMs are typically nurses with graduate degrees who can provide a wide range of gynecological, obstetric, and pre- and post-natal care.

National data on the urban-rural distribution of CNMs are not available, but the proportion of CNMs practicing in the smallest communities has increased slightly over the last decade. In 1982, 23.2 percent of CNMs were employed in communities of fewer than 50,000 (OTA 1990). According to the most recent survey conducted by the American College of Nurse-Midwives (ACNM), this proportion has risen to 24.9 percent (Walsh and DeJoseph 1993). This increase has occurred despite a dramatic decline in NHSC participation by CNMs (as well as other mid-level practitioners). Between 1981 and 1989, for example, the number of CNMs participating in the NHSC declined from 68 to 1 (Coughlin and Wasem 1991).

Allied Professions

While the term "allied health professions" does not have a set definition, it typically includes a wide range of therapists, technicians, and other professionals (OTA 1990). In a study of 10 allied health professions, the Institute of Medicine (IOM) found that physical therapists were most often reported in short supply (IOM 1989). Rural areas have only 38 percent as many occupational therapists relative to population as urban areas, even though rural residents experience higher rates of chronic illness and activity limitations (calculation based on Patton 1988). The IOM predicts national shortages in physical and occupational therapy based on current demand and supply conditions. Shortages could make it more difficult for rural areas to recruit needed personnel.

As in the case of physicians, the location decisions of allied health professionals could also be influenced by their training. A recent research project has concluded that expanding allied health education programs in underserved rural areas could enhance access to care in these areas (Gupta 1992).

RURAL HOSPITALS

While an urban hospital is generally one out of many available to the community's residents, the rural hospital is often the only one in its immediate community. As a result, the rural hospital's economic and political significance can extend beyond its medical functions. The closing of a community's sole hospital can make it difficult to attract physicians or new economic development to a community. Rural hospitals are also often among the larger employers in their communities, giving state and local governments a stake in keeping even money-losing institutions open. At the same time, changes in medical care nationwide, along with the special circumstances facing the rural hospital, are forcing many rural hospitals to change.

A Profile of Rural Hospitals

Forty-five percent of all community hospitals[12] in the U.S. are in rural areas, but these hospitals contain only 22 percent of all hospital beds (American Hospital Association (AHA) 1993). Rural areas have a slightly larger share of the nation's hospital beds (22.0 percent) than of the nation's population (20.6 percent).

Rural hospitals have consistently lower occupancy rates than urban hospitals. In 1992, for example, urban hospitals reported occupancy rates of 68.6 percent, compared with 57.4 percent in rural hospitals (AHA 1992). Both rural and urban occupancy rates have improved in recent years, due in part to large declines in hospital beds (PROPAC 1993). Occupancy rates in rural hospitals have risen by less than in urban hospitals, however, causing the former to remain substantially underused.

Most small hospitals are rural, and most rural hospitals are small. Eighty-two percent of all hospitals with fewer than 50 beds are located in rural areas, and hospitals with fewer than 100 beds account for 72 percent of rural hospitals.

Some rural hospitals are both small and remote. Berry and his colleagues (1988) have characterized about 268 hospitals as frontier hospitals, or non-federal, general, acute care facilities under 50 beds in counties with fewer than 6 persons per square mile. Frontier hospitals represent about 13 percent of the nearly 2,000 rural hospitals with fewer than 100 beds.

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[12] Community hospitals are nonfederal, short-term general, and other special hospitals whose facilities and services are available to the public. In conformance with common usage, this report will refer to rural hospitals as those located outside of metropolitan areas.

The Economics of Rural Hospitals

Rural hospitals are facing serious financial problems. Small hospitals and those in poorer areas provide relatively more uncompensated care than larger hospitals or those in wealthier communities.

A major influence on the financial health of rural hospitals is the Medicare program. Nationwide, Medicare accounts for 35 percent of hospital patient care revenues. With the greater concentration of elderly in rural areas, this share could be much higher for many rural hospitals.

The fiscal problems of rural hospitals date at least to the early 1970s, but have been exacerbated by the Medicare Prospective Payment System (PPS), established in 1983. Under PPS, Medicare reimburses hospitals for patient treatment according to a fixed payment schedule for specific patient classifications, called diagnosis related groups (DRGs). Each of the 477 DRGs carries its own payment level, corresponding to the average cost of treatment for a cluster of similar diagnoses requiring the same amount of hospital resources. Because PPS relies on average charges, it assumes that hospitals will be able to balance the cost of treating patients needing more care than average with the cost of treating those needing less.

PPS has compensated rural hospitals at a lower rate than urban hospitals. The PPS reimbursement computation begins with the national standardized amount, which is designed to reflect the average cost of treating the average patient in the average DRG. This amount is adjusted by the local area wage index, then multiplied by the weight assigned to the patient's DRG. This weight reflects the cost of resources needed to treat patients in the DRG.

Under the PPS system, all hospitals experienced worsening PPS operating margins. In fiscal year 1991, 65 percent of urban hospitals and 61 percent of rural hospitals experienced losses in treating Medicare patients (PROPAC 1993).

Rural hospitals have been paid less than urban hospitals under PPS in part by design. Rural hospitals have been assigned a lower national standardized amount to reflect their lower average costs in the baseline pre-PPS period. The Omnibus Budget Reconciliation Act (OBRA) of 1990 (P.L. 101-508) provides that the difference in the standardized amounts paid to rural hospitals and to those in metropolitan areas of 1 million or fewer in population is to be eliminated by fiscal year 1995. At that time, only hospitals in metropolitan areas of 1 million persons or more will receive a differential rate. Some rural counties were previously redesignated as urban for purposes of determining the hospital wage index used in determining PPS payments.

These changes will raise the payment-to-cost ratio for rural hospitals above that of urban hospitals (O'Dougherty et al. 1992). As a result, it is possible that other PPS adjustments (for factors such as case mix, the higher costs of teaching hospitals, and special hospital circumstances) will be adjusted in the future to rebalance total PPS payments between urban and rural hospitals.

Changes in the reimbursement of rural hospitals may not be sufficient to ensure the survival of many rural facilities, however. The PPS system rewards high-volume hospitals that practice resource-intensive medicine (Buczko 1992). Many smaller institutions do not provide specialized care or perform complex procedures (OTA 1990). Residents must travel to larger rural or urban hospitals for such care. Even for the procedures smaller hospitals do perform, moreover, many researchers as well as potential patients believe that low-volume institutions cannot ensure the same quality of care as institutions with experienced, specialized surgical teams.[13] These concerns, coupled with changes in medical practice affecting all hospitals, have led to a search for institutional alternatives to the rural hospital. This topic is discussed in the next section.

Issues Facing Rural Hospitals

The growing complexity of medical practice, the declining share of patient care delivered in the inpatient setting, and the financial difficulties of many rural hospitals have encouraged the development of new models for the rural hospital. Various approaches have been developed in a number of states.[14]

The Essential Access Community Hospital (EACH) program is a federal program, authorized under the Omnibus Budget Reconciliation Act of 1989 (OBRA 1989), that creates a limited service hospital facility eligible to receive reimbursement under Medicare.[15] The EACH program links large and small facilities in a hospital network. The rural primary care hospital (PCH) is a licensed hospital that limits its scope of inpatient services in exchange for less restrictive licensing requirements and cost-based reimbursement under Medicare.

The following service restrictions apply:

- The PCH must maintain no more than 6 inpatient beds for acute care services and may generally provide only temporary inpatient care lasting 72 hours or less.

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[13] Research on the type and quality of care provided in rural hospitals is reviewed in OTA (1990). Patient attitudes toward care in urban and rural hospitals are discussed in Korczyk and Witte (1991). For a competing view of patient attitudes toward rural hospitals, see Medical World News (1989).

[14] An early approach was the Montana medical assistance facility. See discussion in Analytical Services (1989).

[15] Campion, Lipson, and Elliott (1993) review the EACH program's origins and progress to date.

- A physician, PA, or NP must be available for routine diagnostic services and dispensing of drugs and biologicals. Inpatient care provided by a PA or NP must be under the oversight of a physician.

- The PCH must provide for 24-hour emergency care.

An EACH must have at least 75 inpatient beds and agree to provide emergency and other service to the PCHs with which it is affiliated. An EACH must be located more than 35 miles from any hospital that is designated as an EACH, classified as a regional referral center, or meets certain other criteria.

State governments also play a role in the program. For a set of institutions to be designated as an EACH/PCH network, the state where they are located must develop a rural health plan and must approve the applications of facilities wishing to be designated as EACHs or PCHs.

The program is currently limited to 7 states.[16] As of the end of 1993, however, implementation was stalled due to lack of final regulations and inflexible program provisions. Participating states are currently seeking changes to the authorizing statute to increase program flexibility. These changes include looser requirements for designating urban EACHs and permitting bi-state rural networks according to the discretion of grantee states.

In its current form, the EACH program is expected to have a limited impact on rural hospitals; one analysis suggests that no more than 150 hospitals, or 5 percent of rural hospitals, would find it advantageous to participate in the program (Christianson et al. 1993). Due to its limited impact, the program is considered unlikely to promote regionalization of rural health care in its present form.

In addition to solving the problems involved in designing a new health care institution, rural areas considering downsized hospitals will have to consider the place of these institutions within the entire rural health care system. On the one hand, by establishing a high-quality referral relationship for its residents, a rural hospital can improve the quality of care for its service area even if it must scale back its own services. On the other hand, if the local hospital reduces its scope of services, demand for the services of local physicians could decline as well (DeFriese et al. 1992). Thus, while downsizing could improve the economics of rural hospitals, it could further worsen the economics of rural medical practices.

Many rural hospitals are pursuing other routes to financial stability. For example, some hospitals are forming cooperatives and creating HMOs (Tevis 1989).

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[16] California, Colorado, Kansas, New York, North Carolina, South Dakota, and West Virginia were the states selected out of 21 submitting applications.

Emergency Services

One function that will remain a major role of rural hospitals is the provision of emergency medical services. Better pre-hospital care has allowed more accident victims to reach the hospital alive. Trained emergency medical technicians (EMTs) and well-equipped ambulances have played a major role in this improvement. Most rural areas rely on volunteer EMTs and ambulance services, however. The strength of these volunteer networks is impressive, but better care may be possible with paid staffs. For example, the survival rate is four times higher on an emergency call with a paramedic in attendance than with only an EMT (Lutz 1993). Better service networks and shorter EMS response times mean that an urban accident victim may have a three to four times higher chance of survival than a rural victim in the same circumstances (OTA 1990).

EMS in rural areas need further strengthening and improvement. Problems in delivering adequate care include financing, staffing, and the organizational structure of services. The latter issue can be particularly difficult. The various components of EMS -- pre-hospital care, medical transportation, and hospital care -- are typically handled by various organizations and may require coordination across state lines (Campion et al. 1993). New communications infrastructure also needs to be developed to support rural EMS. Only three states have statewide emergency response "911" systems (Lutz 1993).

State governments are increasingly taking responsibility for financing rural EMS. Fifteen states currently finance EMS through taxes or fees (Lutz 1993). Local taxing districts are also emerging to finance this service.

Rural Hospitals and the Elderly

The rural elderly have a particular stake in the future of rural hospitals, and many rural hospitals are dependent on the elderly for revenues. For example, nearly one-third of all rural hospitals with 100 or fewer beds depend on Medicare beneficiaries for 60 percent of their patient load (author's calculations based on Goody (1992) and PROPAC (1993)).

Because so many rural hospitals depend heavily on Medicare beneficiaries for income, both local communities and rural hospitals may benefit if the hospitals assume a greater role in the provision of long-term care. The Omnibus Budget Reconciliation Act (OBRA) of 1980 (P.L. 96-499) authorized the rural swing-bed program, permitting certain rural hospitals to use inpatient hospital beds for the delivery of hospital, skilled nursing, or intermediate care services to Medicare and Medicaid beneficiaries in rural areas. Eligible hospitals are those in areas with frequent excess acute care capacity and a scarcity of nursing home beds. OBRA 1987 (P.L. 100-203) extended program eligibility to rural hospitals with up to 100 beds subject to certain restrictions.

In 1991, 67 percent of the 1,990 hospitals eligible to participate in the program did so (PROPAC 1993). Hospitals appear to become swing-bed hospitals to improve their financial performance. However, it is not clear whether the program alleviates unmet long-term care needs in these hospitals' service areas. Hospitals participating in the program tend to be located in counties with more nursing facility beds than nonparticipating hospitals.

More needs to be known about both the economic and the medical aspects of swing bed care, including the cost of delivering these services, the type of care delivered and how it compares with that delivered in other settings, the benefits to the patient, and the type of patient who benefits most from swing-bed care (Coward and Cutler 1989). In addition, the program's underlying premise that long-term care is scarce in rural areas is not proven; some rural states have high ratios of nursing home beds to population (Weiner 1987). If long-term care patients should be cared for in their communities, further information is needed on the location of shortage areas within both adequately served and underserved states and regions. However, even given these unknowns, the swing bed program seems to be serving some of the needs of both rural communities and the hospitals serving them.

Rural Health Resources: Summary

As was the case four years ago, health resource availability in rural areas continues to be mixed at best. More physicians, who are the key to health delivery, are moving to rural areas. However, rural physician availability remains far lower than in urban areas, and the smallest communities can expect to face persistent problems. Mid-level professionals, some of whom are more likely than physicians to locate in rural areas, can make up some, but not all, of the health care deficit caused by physician scarcity.

Rural hospitals continue to face severe financial problems. Many of these problems reflect nationwide changes in the organization and delivery of health care in the United States. Because rural hospitals are smaller and more financially fragile than those in urban areas, they face greater difficulties and may need more help in negotiating these transitions than larger urban institutions.

ACCESS TO CARE

Health care needs measure the potential demand for health care; available health care resources measure the potential supply. Measures of health care access and utilization can tell us how needs and resources connect. While rural residents are sicker and have fewer health care providers and facilities available than urban residents, measures of health care access and utilization suggest that the two groups receive comparable amounts of health care.

HEALTH CARE USE

Both urban and rural residents average between five and six physician contacts per person per year (Table 7). Fewer than one in four of each population reported in 1991 that they had had no ambulatory care visit in the previous year.

Rural residents were slightly more likely to be hospitalized in 1991 than urban residents (Table 7). Some authorities believe that higher hospitalization rates in rural areas may reflect in part the logistics of rural health care delivery. Diagnostic and pre-surgical tests as well as surgical procedures that may be able to be performed on an outpatient basis may be performed in the hospital for rural residents due to the distances patients may need to travel and the difficulty of scheduling multiple outpatient visits.

HEALTH CARE COVERAGE

Rural residents are more likely to lack health care coverage than urban residents. The availability of coverage, in turn, affects health care use.

Coverage Patterns

Health care coverage data reported in the 1989 NRECA report cannot be directly compared with later data (Swartz 1992). However, many of the contrasts between urban and rural residents from that report continue to hold today.

Medicaid. As was the case four years ago, rural residents are more likely to be covered by Medicaid than urban residents. In 1992, for example, 10.8 percent of urban residents and 11.8 percent of rural residents were covered under Medicaid (Table 8).

Higher rural Medicaid coverage rates do not fully reflect higher rural poverty rates.[17] Among urban residents with incomes below 100 percent of poverty, 50.5 percent were covered under Medicaid in 1992, compared with 45.8 percent of the rural poor. However, the expansion of Medicaid in the Omnibus Budget Reconciliation Act of 1990 (P.L. 101-508) should increase coverage among poor women and children over time.

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[17] As a categorical eligibility program, Medicaid is intended to reach certain groups of people. Not all those qualifying as poor based on federal poverty standards necessarily fall into those groups. For a discussion of Medicaid eligibility and recent changes, see Gurny et al. (1992).

Table 7.

Health Care Access and Utilization
by Type of Area, 1991

Measure	Metro	Nonmetro
Physician contacts per person/year	5.9	5.4
Percent with:		
One or more short-stay hospital episodes in previous year	7.5	8.9
No ambulatory visit in previous year	21.0	23.3

Source: U.S. Department of Health and Human Services (1992), Table 73.

Table 8.

Health Care Coverage Sources Among the Under-65 Population,
by Income and Type of Area, 1992
(in percents)

Coverage Source	Metro	Nonmetro
All incomes:		
Private	72.6	71.0
employer a/	64.9	61.4
other	7.8	9.7
Medicaid	10.8	11.8
None	16.5	17.2
Below 100% of poverty:		
Private	17.9	22.1
employer a/	10.9	12.3
other	7.0	9.8
Medicaid	50.5	45.8
None	32.2	33.8

Source: Jill Foley, "Sources of Health Insurance and Characteristics of the Uninsured," EBRI Issue Brief No. 133 (January 1993), Table 18.

a/ Includes those covered as dependents of employed persons, whether or not they are employed themselves.

Various explanations have been proposed for lower Medicaid coverage rates among the rural poor:

- Benefits are often less generous in rural states, excluding a larger share of the working poor.
- Higher rates of employment can mean that fewer of the rural poor are eligible for Medicaid.
- Rural residents may lack information about eligibility, may be reluctant to apply for a means-tested program, or may have less access to providers who accept Medicaid.
- Many of the rural poor whose income might qualify them for Medicaid eligibility may be disqualified by farm or business assets.

Employer-provided coverage. Next to paid leave and life insurance, employer-financed health care coverage is the single most widely available employee benefit, available to 83 percent of full-time employees in medium and large firms in 1991, for example (U.S. Bureau of Labor Statistics 1993). Rural residents continue to have lower rates of employer-provided coverage than urban residents, however. Employer plans covered 64.9 percent of urban residents in 1992, but only 61.4 percent of rural residents (Table 8).

Rural residents have lower coverage rates in part because they are less likely to work for the larger firms that typically offer coverage (Frenzen 1993). Employees in small rural firms are 20 to 30 percent less likely to have employer-provided insurance coverage than employees nationwide (Analytical Services, 1988). Lower rural wages may also be a contributing factor, as coverage rates increase dramatically with income. For example, while 16.6 percent of the nonelderly population lacked health care coverage in 1992, this proportion was only 5.7 percent among those with incomes of 400 percent or more of poverty (Foley 1993).

The pace of rural economic growth will affect the growth of health care coverage. Up to 40 percent of small rural employers without health care coverage surveyed by the NRECA indicated that they could offer coverage within 12 to 18 months if their firm were to expand and improve its performance (Analytical Services, 1988). Economic growth will also increase the number of new firms, many of which will not offer coverage in their early years. However, coverage expansion in existing firms has a multiplier effect, as covered employees receive coverage for their dependents.

Private coverage. As was the case four years ago, some of the coverage gap left by Medicaid and employer-provided coverage is filled by private insurance purchases. In 1992, 9.7 percent of rural residents were covered by privately-purchased insurance policies, compared with 7.8 percent of urban residents (Table 8). Put another way, rural residents were almost 25 percent more likely to buy their own coverage than urban residents.

Coverage among the rural and urban poor. Private insurance is more important among the rural poor than in the rural population as a whole. Among those with incomes below 100 percent of poverty, 22.1 percent of rural residents but only 17.9 percent of urban residents were covered by private insurance (Table 7). Among the rural poor, 9.8 percent bought their own insurance, compared with 7.0 percent of the urban poor (Table 7). Nevertheless, despite higher rates of private coverage among the rural poor, the coverage rate for the rural poor was 1.6 percentage points lower than among the urban poor, reflecting the significantly lower rate of Medicaid coverage in rural areas. High rates of individual health coverage suggest that rural residents, and particularly the rural poor, could benefit not only from expanding Medicaid and employer plans but also from improved terms for purchasing individual coverage.

RURAL HEALTH CARE IN PERSPECTIVE

Rural residents are poorer, less healthy, less likely to have health care coverage, and have fewer health care resources available than urban residents. Nevertheless, despite shortages of health manpower and facilities, rural residents receive, on average, about the same amount of health care as urban residents. Thus, either rural health resources are more productive than urban resources, or rural residents are using both rural and urban health care resources, as needed.

With lower coverage rates under both employer plans and under Medicaid, rural residents are more likely than urban residents to pay for coverage out of their own pockets.[18] Those without health care coverage, whether in urban or rural areas, tend to use less health care.

Resource shortages and logistical problems in rural health care delivery have prompted researchers to question the adequacy and quality of rural health care, both in and out of hospitals. The blame for poor rural health does not rest entirely with the health care system, however. Other aspects of the rural environment also undermine health. High rates of poverty lead to inadequate nutrition, poor health maintenance, and, particularly in rural areas, can isolate people from assistance networks.

Rural health is also in part a public works problem. The availability and quality of water and sewer facilities can affect the incidence of gastric disturbances and other medical problems. The availability and quality of roads, transportation, and communication facilities can affect rural

[18] Most employees with employer-provided coverage pay for some of their health care in the form of premium contributions, copayments and deductibles, or both. Many economists also argue that employees with employer-financed coverage "pay" for this coverage with reduced wages (see, for example, Congressional Budget Office (1994)). Whether or not any offsetting deduction is dollar-for-dollar, however, is likely to depend on both the generosity of the plans offered and the competitiveness of labor markets.

residents' access to health care. In short, the only promising approach to rural health care reform is one that treats the rural health system as one part of an interlocking whole.

IV. THE HEALTH CARE REFORM DEBATE[19]

This section examines the health care reform debate and the prospects for rural health policy. In 1989, various rural health policy initiatives were moving largely independently of the overall health care policy agenda. As the debate over health care reform accelerates, policy makers and researchers are increasingly concerned to integrate rural health issues with the national policy agenda. This section discusses the five major proposals that are currently receiving serious consideration.

ADMINISTRATION PLAN

The Clinton Administration health care reform plan is intended to provide universal health care coverage and a guaranteed national benefit package that compares favorably with the typical employer-sponsored plan.

All citizens and legal residents would be guaranteed coverage. All employers would be required to pay 80 percent of the weighted average cost of the basic benefit package as offered by the plans in their regional alliance, with subsidies for small employers and low-wage employers and employees. Employees would be required to pay the difference in cost between the employer payment and the cost of the plan they select.

Employers with fewer than 5000 employees would be required to buy coverage through regional insurance pools called alliances. Larger employers would be allowed to form corporate alliances. With universal coverage, the coverage continuation requirements established under the Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA) would be repealed.

Benefit requirement. All plans would have to comply with the requirements for a national benefit package. This package would include a full range of medical services as medically necessary or appropriate. At least initially, mental health and substance abuse treatment would be subject to more stringent limits than applicable to medical services, and preventive dental care would be offered only for children.

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[19] This analysis is based on information available as this report went to press. The health care reform proposals considered are continuously being revised and renegotiated. Changes could affect both the facts and the characterizations in this section.

Choice of plans. Corporate alliances would have to contract with at least three plans offering the comprehensive or guaranteed benefit package. A corporate alliance may be excused from this requirement if too few state-certified plans exist in a particular geographic area, or if the plans are unwilling to contract with the corporate alliance.

Risk rating. Premiums would be based on community rating, with certain adjustments for plans with a disproportionate share of high-cost enrollees.

Early retirement. Retirees under age 65 would be covered through their regional alliance (or presumably their corporate alliance, as applicable), and would only pay the 20 percent share of premiums they paid when they were employed. The federal government would pay the remaining 80 percent, though it remains to be seen whether this provision withstands the current close scrutiny of the plan's costs. Employers would be subject to a one-time assessment for early retiree health costs.

Cost controls. The proposal would limit the growth of health insurance premiums to inflation, using current spending as the baseline. Health care plans exceeding the spending targets would impose fee reductions on providers. Put another way, the President's proposal assumes zero real, or inflation-adjusted, growth in health care spending. The plan implicitly assumes that the nation would pay for new or improved health care by cutting down on care that is unnecessary, wasteful, or not cost-effective.

State role. Under current law, self-insured plans are exempt from compliance with state insurance laws. Under the President's proposal, the states would play several important roles. First, states would certify plans that would be eligible to participate in the health care system. Second, states would have the option of establishing single-payer plans, under which all persons would be insured by a government program. In any state with such a plan, employers would be required to participate in the single-payer system. Under some estimates, from 8 to 10 states would establish such plans. Administration officials have stated that Employee Retirement Income Security Act (ERISA) waivers for such plans would be essentially automatic.

Medicare and Medicaid. The Medicaid and Medicare programs would continue to exist. The Medicaid program would operate through the alliances. Future retirees would have the option of remaining covered under the same alliance as during their working career. This alliance would then receive payments from Medicare.

CONGRESSIONAL PROPOSALS

The Conservative Democratic Forum (CDF), a bipartisan coalition of House members led by Reps. Jim Cooper (D-TN) and Mike Andrews (D-TX), has introduced a managed competition proposal with significant differences from the Administration's plan (H.R. 3600/S. 1757). The CDF proposal would only require employers to offer, not pay for, their employees' coverage, and

would prohibit the imposition of direct price controls. Also unlike the President's plan, it would cap the deductibility of employer premium payments at the cost of each region's most efficient plan. Capping the deductibility of employer premium payments can have much the same effect on health care costs as the President's controls on the growth of premiums, however. No employer subsidies are offered.

The CDF proposal would repeal the Medicaid program and enroll eligibles in purchasing cooperatives. It does not address the Medicare program.

The Chafee plan. Sen. John Chafee (R-RI) has introduced a bill (S. 1770) with significant elements in common with the CDF proposal. Like the CDF proposal, S. 1770 would not impose direct price controls, would not require employers to pay for coverage, and would limit the deductibility of health care premiums for both employers and individuals. Unlike the CDF proposal, however, the Chafee bill would require individuals to obtain coverage. The Medicaid program would continue to exist, but a federal voucher program would assist low-income families in buying private coverage. No employer subsidies are offered. The Chafee plan does not propose direct or indirect price controls.

The Michel plan. Rep. Robert Michel (R-IL) has introduced legislation (H.R. 3080) with elements in common with the Chafee proposal. The bill would require all employers to offer, though not pay for, health care coverage offering a comprehensive set of health benefits. The plan provides for insurance reforms and changes in the small-firm coverage market. Unlike the Chafee plan, however, the Michel proposal would not require individuals to obtain coverage, nor would it limit the deductibility of health care premiums. No employer subsidies are offered. The Medicaid program would continue to exist, but states would have the option of allowing Medicaid-eligible persons to buy coverage privately. The Michel plan does not propose direct or indirect price controls.

The McDermott plan. Under the Clinton plan, health care coverage would remain an element of employee compensation. Under the Chafee and CDF plans, health care coverage would become much like many other consumer goods.

The single-payer proposal (S. 491/H.R. 1200) championed by Rep. Jim McDermott (D-WA) in the House and Sen. Paul Wellstone (D-MN) in the Senate would make health care coverage a public service, much like education and national defense are today. Everyone would be covered by a national insurance program that would be administered through the states. Funds for this program would be collected, appropriated, and disbursed in the same way as for other federal programs, and detailed price and spending controls would be established. No employer subsidies are offered, but the plan would be paid for in large part through increases in corporate income taxes, not employer payroll taxes.

POINTS OF SIMILARITY

The various proposals contain enough common elements that it is possible to guess at how reform will develop. Some possible elements of a revised health care system are:

Mandates. All five major proposals considered above would impose mandates on employers, individuals, or both. The mandates can require that employers and individuals pay for health care coverage (Clinton and McDermott proposals); that employers offer health care coverage (CDF and Michel proposals; Chafee would apply to small employers); or that individuals purchase coverage (Chafee proposal).

Spending limits. The Clinton and McDermott proposals contain limits on health care spending. These limits include ceilings on the tax deductibility of premium payments for employers, individuals, or both; global budgets aimed at reducing the growth of total health care spending; and caps on premium growth.

Increased market concentration. Most health care reform proposals would result in increased market concentration among health care providers and insurers. This result is most likely if the new system is designed using a managed care approach, since this approach would encourage many providers to organize themselves into large networks.

Greater market concentration could also occur under other reform approaches, however. This result is likely for several reasons. First, most health care reform proposals attempt to guarantee coverage availability to all at community rates. These requirements would mean that some poor risks would be extended coverage at a rate inadequate to cover their expected claims. Most large insurers can probably achieve adequate risk pooling under such requirements, but smaller insurers may not.

A second factor contributing to increased market concentration is the need for cost containment. Managed care plans are likely to continue to grow in popularity. These plans promote increased market concentration among both providers and insurers because they require large capital investments in the constructions and maintenance of provider networks.

The impact of increased market concentration among providers is not clear. On the one hand, it could reduce effective consumer choice among providers, since most providers in any community would belong to only a few provider networks. On the other hand, the growth of provider networks could help standardize medical care. Provider networks tend to develop practice standards that apply throughout the organization. Such standards can reduce or eliminate

differences in medical practice and outcomes among areas and providers, thereby improving health care quality.[20]

UNRESOLVED ISSUES

There are also many differences among the proposals and many unresolved issues. Some of the more contentious issues will be:

Who will bear the burden of mandates. Some proposals would place the responsibility for purchasing health care coverage on the individual, while others would require employers to offer coverage, contribute to its cost, or both.

Choice of health care providers. Some observers want to maintain free choice of health care providers under a reformed health care system. Others believe that some restrictions may be necessary to reduce health care costs and improve quality.

The prospect of health care rationing. If explicit constraints on the growth of health care spending are enacted, many observers believe that health care rationing could result. "Rationing" is a catch-all term for reduced access to care from which the patient could derive some benefit. Under the present system, a covered patient can generally expect to receive all care that might be effective. Under explicit spending controls, patients could be limited to care that is expected to be cost-effective. As a result, some patients might be deprived of potentially beneficial care.

Some observers fear that the burden of such changes could be borne by the elderly, by low-income individuals, or by others unable to take an active part in the management of their care. Any negative impacts of an increased focus on cost-effectiveness could be mitigated by the development of practice guidelines for the treatment of specific conditions.

The impact of spending controls on research and development in health care. The pace of technological innovation in U.S. health care has in part reflect the fact that health care has been a growth industry, and that economic and demographic trends pointed toward its further growth. Many health care reform proposals would restrain the growth of health care spending far below recent levels. Such reductions could reduce the pace of innovation just as the aging of the population, the spread of AIDS, and the drug crisis create new needs.

Paying for the plan. Over the long term, health care reform that extends coverage to those currently uninsured can be expected to reduce the growth of health care spending, in part by reducing cost-shifting and by increasing spending on preventive care. In the near term,

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[20] A growing body of research examines the incidence and health consequences of practice differences among providers. See, for example, Wennberg (1990).

however, expanding health care coverage is likely to increase health care costs substantially. Revenue sources could need to be identified before reform will become practicable.

RURAL INTERESTS IN HEALTH CARE REFORM[21]

Rural areas have many of the same interests in health care reform as urban areas. For example, expanded health care coverage can improve rural health conditions by providing a significant infusion of cash into the rural health care system. Adequate health care coverage could improve the health status of rural residents and reduce the proportion of uncompensated care rendered by rural providers.

On other health care reform issues, the interests and needs of rural and urban areas may differ significantly.

Cost control and reimbursement. Both rural and urban residents stand to benefit from initiatives that can reduce the growth of health care costs. Such initiatives can include practice guidelines that can reduce the incidence of unnecessary surgeries and other medical treatments as well as organizational innovations aimed at reducing redundant medical capacity.

An overwhelming concern of health care reformers, however, is paying for the expansion of coverage. Many of those currently without coverage will have to be covered under Medicaid or under new employer plans. Medicaid expansion will require new federal and state government spending. Expanded employer coverage, in turn, may not be achievable without government subsidies for small or low-wage firms. Rural firms, which tend to pay lower wages, may be particularly hard pressed to afford health care benefits, even if insurance reforms enhancing affordability are enacted.

Some observers caution against cutting the growth of Medicare reimbursements as a way to finance expanded coverage. With larger elderly populations, many rural providers are particularly vulnerable to cuts in Medicare. Medicaid spending, in turn, may need to be significantly increased, both to expand coverage and to increase provider reimbursements, particularly if the Medicaid-eligible population is to be covered under private plans, as in the Clinton, CDF, Chafee, and Michel proposals.

Flexibility. Rural areas are more diverse as a group than urban areas. Local history, geography, and economic conditions are among the factors that determine both health care needs and the resources available to meet those needs. For example, some rural areas have better

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[21] This discussion draws on Campion, Helms, and Barrand (1993), which reports the recommendations of a rural health care summit held in Little Rock, AR in March, 1993; and Rural Policy Research Institute (1994).

health care facilities than their economic resources might otherwise indicate in part due to a history of local philanthropy (Korczyk and Witte 1991).

Some rural communities will be able to meet most of their health care needs internally, while others will require extensive networking relationships with more distant providers. Consider health care resource needs under a managed competition model:

- Kronick et al. (1993) estimate that only a health care market with a population of 1.2 million would be able to support three fully independent prepaid plans staffed on the model of large staff-model health maintenance organizations.

- A market with a population of 360,000 would be able to support three plans that independently provided most acute care hospital services, but the plans would need to share hospital facilities and contract for tertiary services.

- A market with a population of 180,000 would be able to support three plans providing primary care and many basic specialty services, but the plans would have to share inpatient cardiology and urology services.

Based on this analysis, only 42 percent of the U.S. population lives in health care markets that could support at least three self-sufficient plans. The majority of the population lives in areas where significant cooperation among plans, areas, or both would be required to provide adequate health care services.

Improving local health care resources. Urban residents generally find health care providers readily available, though shortages of some services can occur in inner-city areas. Rural areas, on the other hand, need improved health care infrastructure and more primary care providers. Expanded health care coverage could improve provider availability by improving the economics of rural medical practices. However, the changes affecting hospitals nationwide mean that many rural hospitals will not survive in their current form. The evolution of rural hospitals must be managed in such a way as to strengthen local providers.

The role of the states. Individual rural communities have a stronger voice at the state level than at the federal level. A strong role for states in designing and administering a reformed health care system can ensure that health care policy is tailored to specific local rural needs.

In a detailed assessment of health care reform proposals from the rural perspective, a panel of health care experts convened by the Rural Policy Research Institute (RUPRI) evaluated the five major health care proposals discussed with respect to six critical needs or dimensions of rural health care:

- enhancing the availability of appropriate rural providers;

- enhancing the availability of appropriate rural facilities;

- promoting integration and coordination of the rural health care system;
- increasing rural influence, involvement, and representation in system governance;
- cost control and reimbursement mechanisms; and
- promoting insurance coverage of adequate scope (RUPRI 1994).

The panel judged the Clinton and McDermott proposals to be largely positive in their impact on these needs. While the CDF proposal did not address all the needs identified by the panel, its impact was judged to be positive on the needs it did address. The Chafee proposal was judged to be largely positive in its impact on all needs but expanding the availability of rural providers. The Michel proposal was judged to have a positive impact on rural facilities, a negative impact on rural representation, and no impact on the other needs. [22]

V. CONCLUSIONS: PRINCIPLES FOR AN ACTION AGENDA

Many aspects of rural health care remain fundamentally unchanged since the previous NRECA survey of this issue:

Health care coverage gaps remain widespread. Many urban and rural Americans continue to lack adequate health care coverage and access to providers.

Rural health care needs remain significant. Rural residents remain less healthy than urban residents. Many contributing factors, such as higher poverty rates and slower economic growth, show no signs of abating.

Rural health care providers continue to be under financial stress. New financial arrangements will be needed to ensure the survival of rural hospitals and medical practices.

These needs suggest the following policy imperatives:

Expanding health care coverage. Expanding health care coverage continues to be the fundamental requirement for strengthening the rural health care system. Expanded coverage can improve health care status and stabilize rural health care providers by ensuring that they are paid for the care they render.

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[22] These judgments applied to the proposals in the form studied by the panel. The panel also proposed legislative changes that could enhance each proposal's impact on rural health needs and resources.